



Patent / Docket No. 23100.36  
Customer No. 000027683

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of:

MCANALLEY ET AL.

Application No. 09/242,215

Filed: FEBRUARY 8, 1999

For: COMPOSITIONS OF PLANT  
CARBOHYDRATES AS  
DIETARY SUPPLEMENTS

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Confirmation No.: 9780

Group Art Unit: 1654

Examiner: M. Flood

TRANSMITTAL

Mail Stop Issue Fee  
Commissioner For Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Enclosed are the following regarding the above-identified patent application:

1. Issue Fee Transmittal Form PTOL-85;
2. Information Disclosure Statement, Modified Form PTO-1449 and references;
3. check in the amount of \$1,360 (\$1,330 for Issue Fee; \$30 for soft copies); and
4. return postcard.

The Commissioner is hereby authorized to charge payment of any further fees associated with any of the papers submitted herewith or to credit any overpayment to Deposit Account No. 08-1394.

Respectfully submitted,

Randall C. Brown

Reg. No. 31,213

Date: July 6, 2004  
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File: 23100.36

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

on July 6, 2004

Signature of person mailing paper and fee

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HAYNES & BOONE, LLP  
901 Main Street, Ste. 3100  
Dallas, TX 75202

Re: U.S. Patent Application No. 10/294,121  
COMPOSITIONS OF PLANT CARBOHYDRATES AS DIETARY SUPPLEMENTS  
*Owned by Assignment by Mannatech, Inc.*

**Attn.: Responsible Attorney for above-identified patent application**

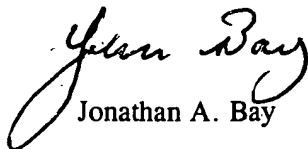
Dear Sir/Madam:

An interested party has contacted me regarding the above-identified patent application (and as more particularly identified on the attached cover sheet for U.S. Patent Application Publ. No. US 2003/0072770 (A1)).

The interested-party has further provided me instructions to transmit the accompanying packet of articles in connection with the duty of candor and good faith toward the Patent & Trademark Office (PTO) that rests on each attorney or agent who prepares or prosecutes an application to disclose to the PTO information of which they are aware and which is material to the patentability of the invention claimed in the application. Abbreviated citations of all are listed on attached Appendix.

You are invited, of course, to make and independent judgment.

Sincerely yours,

  
Jonathan A. Bay

JAB/jlm  
enclosure(s)

## APPENDIX

- J. Teas, "The Dietary Intake of Laminaria, a Brown Seaweed, and Breast Cancer Prevention"
- A. Bond et al., "Distinct Oligosaccharide Content of Rheumatoid Arthritis-Derived Immune Complexes"
- N Pugh et al., "Characterization of Aloeride, a New High-Molecular-Weight Polysaccharide from Aloe Vera with Potent Immunostimulatory Activity"
- J.R. Clamp et al., "Study of the Carbohydrate Content of Mucus Glycoproteins from Normal and Diseased Colons"
- A. Bond, et al., "The relationship between exposed galactose and N-acetylglucosamine residues on IgG in rheumatoid arthritis (RA), juvenile chronic arthritis (JCA) and Sjögren's syndrome (SS)"
- Peterson et al., "Early Manifestation of the Carbohydrate-Deficient Glycoprotein Syndrome"
- A. Djeraba et al., "In vivo macrophage activation in chickens with Acemannan , a complex carbohydrate extracted from Aloe vera"
- T. Feizi, "Significance of carbohydrate components of cell surfaces"
- K. Matsuda et al., "Inhibitory Effects of Sialic Acid- or N-Acetylglucosamine-Specific Lectins on Histamine Release Induced by Compound 48/80, Bradykinin and a Polyethylenimine in Rat Peritoneal Mast Cells"
- S. Hakomori, "Aberrant Glycosylation in Cancer Cell Membranes as Focused on Glycolipids: Overview and Perspectives"
- D. Ryan, et al., GG167 (4-Guanidino-2,4-Dideoxy-2,3-Dehydro-N-Acetylneuraminic Acid) Is a Potent Inhibitor of Influenza Virus in Ferrets"
- R. Malhotra et al., "Glycosylation changes of IgG associated with rheumatoid arthritis can activate complement via mannose-binding protein"
- A. Olszewski et al., "Plasma glucosamine and galactosamine in ischemic heart disease"
- J. Cuddihy et al., "The Presence of Total Polysaccharides in Sugar Production and Methods for Reducing Their Negative Effects"
- C. Haydu et al., "Medical Attributes of Aloe vera - The Aloe Plant"
- T. Balter, Paper Entitled: "Aloe Vera Research", comprising a compilation of abstracts of

numerous scientific papers.

G. Alton et al., "Direct utilization of mannose for mammalian glycoprotein biosynthesis"  
KR Stone, "Glucosamine References"

Articles from "Inside Aloe" magazine: R. Davis, "Polysaccharide: The Magic Bullet"  
R. Pelley, "The Story of Aloe Polysaccharides"

RA Dwek, "Glycobiology: 'The function of sugar in the IgG molecule'"

J. Scott, "Extracellular matrix, supramolecular organisation and shape"

N. Ercan, "Effects of Glucose, Galactose, and Lactose Ingestion on the Plasma Glucose and  
Insulin Response in Persons With Non-Insulin-Dependent Diabetes Mellitus"

J. Theodosakis et al., "The Arthritis Cure"

A. Sanchez et al., "Role of sugars in human neutrophilic phagocytosis"

S.K. Seul (???) , "Fucoidan Research", comprising a compilation of abstracts of numerous  
scientific papers.

M. Ghoneum, "Anti-HIV Activity in Vitro of MGN-3, an Activated Arabinoxylane from Rice  
Bran"

I. Tizard et al., "The biological activities of mannans and related complex carbohydrates"

Author Unknown, "About Konnyaku" and "What's Glucomannan"

Z. Qiu et al., "Modified Aloe barbadensis Polysaccharide with Immunoregulatory Activity"

I. Tizard et al., "The biological activities of mannans and related complex carbohydrates"

M. Fukuda et al., "Molecular Glycobiology"

D. Womble et al., "Enhancement of Allo-Responsiveness of Human Lymphocytes by  
Acemannan (CARRISYN™)

S.Y. Peng et al., "Decreased mortality of Norman Murine Sarcoma in mice treated with  
immunomodulator, Anemannan™"

P.D. Overton et al., "The effects of dietary sugar-beet fibre and guar gum on lipid metabolism in  
Wistar rats"

A. Varki, "Unusual modifications and variations of vertebrate oligosaccharides: are we missing

the flowers for the trees?"

- S. Ikegami et al., "Viscous Indigestible Polysaccharides Reduce Accumulation of Pentachlorobenzene in Rats"
- C. Leclère et al., "Role of viscous guar gums in lowering the glycemic response after a solid meal"
- A. Sampaio et al., "A Galactose-Specific Lectin from the Red Marine Alga *Ptilota Filicina*"
- CA Edwards et al., "Viscosity of food gums determined in vitro related to their hypoglycemic actions"
- P. Bouic et al., "Plant Sterols and Sterolins: A Review of Their Immune-Modulating Properties"
- P. Kidd, "The Use of Mushroom Glucans and Proteoglycans in Cancer Treatment"
- D. Womble et al., "The Impact of Acemannan on the Generation and Function of Cytotoxic T-Lymphocytes"
- H. Hara et al., "Ingestion of Guar Gum Hydrolysate, a Soluble Fiber, Increase Calcium Absorption in Totally Gastrectomized Rats"
- R. Knopp et al., "Long-Term Blood Cholesterol-Lowering Effects of a Dietary Fiber Supplement"
- J. Kahlon et al., "Inhibition of AIDS virus replication by Acemannan in vitro"
- A. Chinnah et al., "Antigen dependent adjuvant activity of a polydispersed  $\beta$ -(1,4)-linked acetylated mannan (acemannan)"
- J. Zavoral et al., "The hypolipidemic effect of locust bean gum food products in familial hypercholesterolemic adults and children"
- G. Ramelow et al., "Uptake of metallic ions from aqueous solution by dried lichen biomass"
- K. Landin et al., "Low blood pressure and blood glucose levels in Alzheimer's disease Evidence for a hypometabolic disorder?"
- R. Rest et al., "Mannose Inhibits the Human Neutrophil Oxidative Burst"
- G. Kelly, "Larch Arabinogalactan: Clinical Relevance of a Novel Immune-Enhancing Polysaccharide"
- A.J. Vlietinck et al., "Plant-Derived Leading Compounds for Chemotherapy of Human

## **Immunodeficiency Virus (HIV) Infection”**